

## INTRODUCTION

This interagency report is provided as a means to summarize wildland fire activities in the Southwest Area during 1999. It is broken down into the following sections:

### **I. Highlights**

### **II. Fire Season Statistics**

### **III. Incident Support Summary**

The 1999 fire season in the Southwest Area fell slightly below the normal level for fire activity in the southwest. Overall, there were 2,441 person-caused and 1,585 lightning caused fires for a total of 4,026 wildland fires in 1999. Total acreage burned was 102,319. The Energy Release Component (ERC) chart indicated there was high potential for large fire activity through the months of May and June. However, initial attack and large fire activity remained within the normal range through the season, with only one type 1 incident and 5 type 2 incidents. Throughout the year, a significant number of SWA resources were mobilized to other geographic areas of the country, including Florida, Texas, Nevada, and California.

***Unfortunately, there was one fatality related to firefighting in 1999. This occurred to Gregory Pacheco, a Southwest Firefighter crewmember from Penasco, NM. The fatality occurred while on the Palomar Mountain Fire, October 2<sup>nd</sup>, in Southern California. The entire firefighting family of the Southwest Area extends its condolences to the family.***

# ***Section I***

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## ***Agency Highlights***

## *SOUTHWEST COORDINATION CENTER*

### *HIGHLIGHTS*

The Southwest Coordination Center (SWCC) was very active during 1999. Fire activity in the Southwest Area was moderate, which meant normal levels of resource mobilization. However, support outside the Geographic Area kept SWCC very busy. SWCC received the first resource orders for 1999 on January 9<sup>th</sup> and had open orders with personnel assigned out of the area on December 31<sup>st</sup>. Mobilization of resources to Texas, Western Great Basin, Southern and Northern California, and the Southern Area made up the majority of the workload. This included the following Incident Management Team Assignments:

- One Type 1 Team assignment in the Southwest Area
- Three Type 1 Team assignments out-of-area to Florida, California, and Kentucky
- Three Type 2 Team assignments in the Southwest Area
- One Type 2 Team assignment out-of-area to Colorado

During the hurricane season, August - October, along the Atlantic coast, the Southwest Area mobilized a number of support personnel to the southeastern United States, Puerto Rico and St. Croix. Southwest Area personnel were involved with FEMA and other Federal agencies at many levels of the Emergency Management program. SWCC had personnel gain experience in working at the FEMA Regional Operations Center (ROC) in Atlanta, Southern Area Coordination Center, State Emergency Operation Center's in South and North Carolina, and an expanded dispatch center in San Juan Puerto Rico. In addition, some SWCC personnel worked as members of the Emergency Response Team-Advanced, and the Unified Command organization with FEMA, GSA and Corp of Engineers.

SWCC personnel assisted Zone Coordination Centers and expanded dispatch offices in Grand Canyon Zone, Albuquerque Zone, Southeast Arizona Zone, Santa Fe Zone, and Lincoln Zone. Thanks for the opportunities. SWCC has worked hard to be in a position to offer personnel to the Zone centers and other Geographic Area Coordination Center's (GACC) when office staff shortages arise at those locations.

Bobby Shindelar joined the SWCC staff in April and Hallie Locklear joined the SWCC staff in May. Bobby is with the USDA Forest Service and came to SWCC from the Southern Area Coordination Center in Atlanta GA, where he was the Aircraft Dispatcher. Hallie is with the Bureau of Land Management, New Mexico State Office, and came to SWCC from the Fish and Wildlife Service office in Denver, Colorado. Both Bobby and Hallie will be Area Coordinators and represent their respective agencies in SWCC.

*John Schulte*  
*Center Director*

**USDA Forest Service  
Region 3  
Southwestern Region**



The 1999 fire season appeared to be very serious and busy two months early as winter turned to spring. Precipitation and winter snow pack ranges from 20-50% below normal throughout the region. Severity money was requested and received as early as February on some Forests. However, late spring storms in April and May kept the fine fuels below combustion levels and early large fires were rare. As summer approached, temperatures rose, relative humidity dropped, fuels became dry, and lightning appeared. Thus, fire activity rapidly increased.

The National Forests within the Region had a total of 1,719 fires for a total of 17,615 acres. This compares with 2,026 fires and 88,991 acres average for the past 10 years. There were two Type 2 team assignments on National Forest Lands in 1999, one on the Cibola National Forest, and one on the Coronado National Forest. There were no Type 1 assignments on National Forest lands within the region. However, Southwest Area teams were assigned to fires on the Daniel Boone National Forest in Region 8 and the Shasta-Trinity national Forest in Region 5. The Southwest Area Command team also received an assignment on the Shasta-Trinity.

Unfortunately, one fatality occurred to a Southwest Firefighter Crewmember. This occurred to a Penasco Crewmember while on a fire in Southern California. A rolling rock created the accident in which the firefighter received his fatal injuries.

A few staff changes and retirements occurred during the year. Rich Wands and Mike Mataressee, FMO and AFMO respectively, on the Santa Fe National Forest accepted new positions. Paul Orozco, from the Pike-San Isabel NF in Colorado and a former Region 3 employee, replaced Rich Wands on the Santa Fe NF. Tom Beddon is the new FMO for the Apache-Sitgreaves National Forest's. Dan Winner, Regional Fire Planner, and Al Defler, Regional Fire Director, both retired at the end of the year. Edy Williams-Rhodes became the new Regional Fire Director in January 2000.

*Charlie Denton  
Assistant Director for Operations  
Aviation and Fire Management*

**National Park Service  
Intermountain Region  
Southwestern Parks**



The last year of this century was busy and productive for the Intermountain Region (IMR) Fire Management Program. Dan O'Brien retired the first of June. His dedication and professionalism will be missed. Bryan Swift was selected to replace Dan as Regional Fire Management Officer. Tim Sexton was selected to fill the new Fuels Management position at the National Fire Program Center in Boise. Paul Gleason was selected to fill Tim's position. Kim Thomas was selected to fill a new position created in the Northern Rockies Coordination Center (NRCC) at Missoula, Montana. Kim will be coordinating the Fire Use Modules for the region as well as dispatch duties at NRCC. Dave Lentz, Elizabeth Anderson, Cliff Chetwin, Jeanie Harris, and Jay Ellington rounded out the remainder of the IMR Fire Management staff.

**Fire Effects/Fire Ecology**

The IMR Fire Effects Program has 11 field crews installing and re-reading fire effects plots in 27 parks. The crews met their installation and re-read goals, and responded to additional requests for assistance from parks starting to use prescribed fire. All of the programs are generating high-quality data that is being used to provide good adaptive feedback information. The challenges facing the program in 2000 are how to use the analyzed data to refine desired conditions, how to make the data available to the greatest number of resources and fire managers, and how to better integrate the fire effects program into resource management planning.

The staffing structure of the IMR Fire Effects and Fire Ecology Program has changed to respond to the needs to fire and resource managers. The Regional Fire Monitoring Program Specialist position has been reclassified as a Fire Ecologist. This will allow the office to respond to park level fire ecology and planning issues in a timely manner. This position will continue to oversee the fire effects program. In the field, five of the Lead Fire Effects Monitor positions have been converted to full time Fire Effects Specialists. This change will allow the people to assist fire and resource management in the development of desired conditions, and provide higher quality data for the adaptive feed back process of the prescribed fire program.

**Fire Use Modules**

The four IMR Fire Use Modules came under new regional coordination in 1999. With a few adjustments the fire use module program ran smoothly with positive feedback from the benefiting parks as well as other agencies. The module's 1999-fire season stretched from early March to November and covered areas from Alaska to Texas. The modules predominantly assisted fire managers with wildland fire use incidents for both the NPS and USFS for approximately 35% of their time. Other assignments assisted the IMR parks

with prescribed fire in the areas of planning, ignition, holding, and fire behavior monitoring. The Yellowstone Fire Use Module blazed new territory for the module program by accepting an assignment to Alaska's Yukon-Charley Rivers Preserve. Bandelier, Saguaro and Zion Fire Use Modules assisted parks in the Intermountain Region and the Pacific West region as well as the BLM and USFS with both wildland fire use incidents, prescribed fire and fire effects. This year marked the first operational season for the Saguaro module.

### **Aviation**

This year's highlight in aviation was the Department completing its review of the region's aviation program. The first such review in over a decade. Key recommendation suggested improvements to aviation safety and the need to study potential additional aircraft at Yellowstone, Grand Teton, Glen Canyon, Big Bend, Canyonlands, and the Intermountain Regional Office. Regional aviation program and facility reviews were completed for Rocky Mountain, Dinosaur, and Lake Meredith. The plan is to expand this effort to 5-7 parks per year in the future. The region again had the lead in coordination the Service's outreach interpretive program dealing with overflights and other aviation issues at national and area venues, to include Oshkosh.

### **Wildland Fire Use and Prescribed Fire**

The region continues to aggressively step-up to the challenges of the Federal Wildland Fire Policy. In wildland fire use as well as prescribed fire, parks have developed strong programs and are positioning themselves for the future. During 1999 the region increased its prescribed fire accomplishments six fold over the ten-year average.

The Anaconda fire at Glacier, Box Canyon fire at Saguaro, Mount Emma at Grand Canyon, Alder fire at Grand Teton, and Stinker fire at Zion were significant fire use projects. Parks gained additional experience in developing Wildland Fire Implementation Plans and implementing fire use strategies.

We are very proud of the parks (Lake Meredith, Guadalupe Mountains, and Saguaro) that continue to develop their prescribed fire programs as well as parks with well-established programs (Big Thicket, Grand Canyon, Zion, and Grand Teton). This year Big Bend and Lake Meredith have aligned their respective programs to be major prescribed fire practitioners in future years.

One of the major challenges of the future will be the planning and implementation of prescribed landscape fires, in concert with resource management, that are ecologically appropriate as well as socially acceptable.

### **Planning**

The regional and national staff assisted Colorado National Monument and Black Canyon of the Gunnison National Monument and Curecanti National Recreational Area with initiating and completing Fire Management Plans. Additional fire management planning efforts are moving forward.

An Integrated Fire Planning Workshop for Fire and Resource Management workshop and a Technical Transfer of Weather Data Analyses workshop were initiated, organized and conducted by the regional staff with assistance from the national staff. The regional staff assisted the Pacific West fire management staff with a Cultural / Fire Management Workshop.

### **Park Highlights**

#### ***Saguaro National Park***

The largest wildland fire use (resource benefit) ignited on June 18<sup>th</sup> on the southwest boundary of the Park. The fire burned over a period of about 7 days treating about 6,500 acres of grass, pinyon-juniper, and ponderosa pine fuel types. Saguaro hired the National Park Service's seventh fire use module. The module became operational on August 1<sup>st</sup> and over the subsequent two months provided support to National Park Service and U.S. Forest Service Units in prescribed fire and wildland fire use. Saguaro hired not only the module personnel, but also added subject-to-furlough packer and assistant fire effects manager. The Park began planning for a new helibase and fire management facility. Construction is expected in FY2000.

#### ***Big Bend National Park***

The Park had four human caused fires for 19.1 acres and seven lightning caused fires for 0.7 acres. The Casa Grande Fire, a 230-acre fire escaped prescribed fire, was the Park's lone large fire. The fire started 5/08 and was controlled 5/04. The Park had one fire managed as a Wildland Fire Use for 28 acres. In Prescribed Fire, the Park had three ignitions for 677.1 acres. This includes the Lone Mountain Rx Burn. This burn was 645 acres and was the largest burn to date in the park. Use of the Mexican National Fire Fighters "Los Diablos" was made to the benefit of the park. These fire fighters are receiving valuable experience to improve their skills in fire suppression. The SW Fire Use Training Academy (two modules) were participants in the burn. Many of the students completed task book assignments and added significantly to the smooth operation of the burn. The park aviation program changed leadership with the transfer of Park Ranger/Pilot Jim Unruh to Capital Reef National Park. His position was filled with as a Park Ranger/Pilot with Nick Herring from Grand Canyon National Park. The Mescalero Apache Helitack Module and Helicopter was utilized on the Casa Grande Fire for 13.7 flight hours. A three person module continued to implement the Fire Effects Programs at Big Bend National Park, Guadalupe Mountains National Park and Carlsbad Caverns National Park. The module accomplished fire effects work on 49 plots and assisted monitoring on several prescribed burns. The module initiated a live fuel-moisture sampling program at Big Bend National Park.

*Bryan Swift*



*Regional Fire Management Officer*

**Bureau of Land Management  
Arizona State Office  
Fire and Aviation Group**



Arizona BLM entered the 1999 fire season under the effects of La Nina. The resulting annual growth was less than expected. The burning index was above average throughout most of the season for all of our weather stations. This was mostly driven by below normal live fuel moisture. While the number of fires was only 58% of the 10 year average, the acres burned was 200% above the 10 year average. Majority of the acres came from two fires that occurred over the Memorial Day weekend.

Arizona BLM	1999	10 year average
Fires	193	333
Acres burned	39654	19169

**Arizona Strip**

The Arizona Strip fire staff continues to develop interagency cooperation with the Dixie National Forest and the Dixie Resource Area of the Cedar District, BLM. The Arizona Strip is now responsible for fire management on BLM lands in Washington County, as well as the Pine Valley Ranger District of the Dixie National Forest. This agreement has shifted fire logistics out of the Southwest Geographic Area to the Eastern Great Basin Coordination Center.

**Phoenix/Kingman**

The Phoenix/Kingman Zone Fire Staff along with the Safford/Tucson fire staff completed an agreement to share fire resources with Montana BLM. The MOA establishes a shared helicopter contract, sharing of engines and other fire personnel to assist in employee development.

**Safford/Tucson**

The new air and fire dispatch center was completed at the Safford airport. This new facility provides much need space for air and fire logistics within the Safford area.

**Yuma/Lake Havasu**

The Yuma/Lake Havasu Field Office fire staff is improving cooperation with other interior agencies and state lands. Interior (BLM, FWS, BIA) completed the merging of fire staffs in an interagency effort. BLM is proving the Fire Management Officer with BIA providing the Fire Control Officer. The Colorado River Zone joined in with the Central Arizona Zone to form the West Central Arizona Zone.

**Urban / Interface**

Arizona BLM started a project to identify our wildland urban interface problem areas utilizing GIS. This is phase 01 of a multi-phased project to begin developing solutions to the problem.

**National Mobilization**

Arizona contributed to the national suppression effort in 1999 by supplying engines, overhead and GIS technical support.

**International**

Arizona has been an active partner with Mexico. The State FMO was the lead for a fire management workshop in Brownsville, Texas for Mexican Fire Management. Cooperation between the two countries continues to grow.

**Fuels Management**

Arizona completed a very successful first year of the 2823 program. We completed 11 prescribed burn projects for 23,375 acres treated. We also completed 2 mechanical treatments for 50 acres.

**Projection for the 2000 fire season**

We have adequate carry over fuels to present a fire problem in the southeast and northwest part of the state. Precipitation is running less than normal at this time. Long-range predictions indicate less than normal precipitation due to La Nina effect. Without moisture relief the brush, Pinyon Juniper and Ponderosa Pine fuel types will become a fire problem if ignitions occur. The lack of moisture may have an impact on our fuels programs by narrowing the burning window.

*Al Alavarez*

*State Fire Management Officer*

**Bureau of Land Management  
New Mexico State Office  
Fire and Aviation Group**



After a moist summer in 1998 and a dry winter, BLM New Mexico expected a severe fire season in 1999. We brought on our fire crews early, prepared requests for severity funding, and began fire prevention measures. We were surprised by late spring rains, and relatively moist and rainy conditions throughout the fire season kept our burning conditions moderate. The final wildfire statistics for the season were below average.

Our counterparts in the Great Basin ended up getting the fire season that we expected to get here in New Mexico. BLM New Mexico sent as many fire crews and overhead as possible to the Great Basin for extended assignments.

The unusual conditions in New Mexico and the demand for fire resources in other states kept our prescribed fire accomplishments lower than projected. Still, a number of key projects were completed, and we are continuing to develop and strengthen our fuels program.

The State Office added a Prescribed Fire Specialist, Karen Michaud, to our staff, and Hallie Locklear returned to the Southwest in the BLM NM position in SWCC. Kelly Castillo came on board as the FMO for the Farmington Field Office, and BLM provided a dispatcher for the Taos Zone/Carson dispatch office.

All in all, it was a relatively quiet year for us in New Mexico. Much of our effort was directed toward assisting other states.

*Bob Lee  
State Fire Management Officer*

**U. S. Fish & Wildlife Service  
Region 2  
Southwest Region**



The 1999 fire season within Region 2 was a continuation of the 1998 fire season. Due to La Nina and the extended drought, wildland fire suppression operations occurred during each month of the year. Despite predictions for a very severe wildland fire season, well-timed spring and summer rains helped to keep large wildland fire occurrence down across the southwest.

However, fire season never really quit for any extended period of time. A Regional severity request was initiated in April, and severity crews arrived in New Mexico and southern Texas in early May. These crews remained until July. In September, another severity request placed crews along the Texas Gulf Coast. The September request was a coordinated effort among Region 2, Region 4 and the Texas Forest Service, who placed two Type 2 helicopters at Balcones Canyonlands National Wildlife Refuge for almost 2 months.

A total of 102 wildland fires occurred on FWS lands within the Region in 1999. These fires burned 19,458 acres. The most wildland fire activity occurred on McFaddin National Wildlife Refuge, which had 23 fires for 4,199.5 acres. In addition, Regional fire crews responded to 132 other fires for a total of 265,809 acres.

Prescribed fire accomplishments during 1999 exceeded the 10-year average. A total of 142 prescribed fires covering 68,712 acres was conducted. Of note were prescribed burns conducted on Aransas National Wildlife Refuge to improve winter habitat for endangered whooping cranes. Approximately 15,000 acres of degraded savannah grasslands were burned during July and August. These prescribed fires helped open areas for the whooping cranes to use as foraging grounds. National Whooping Crane Coordinator Tom Stehn credits the burns with helping to keep the whooping cranes on the refuge, where they have a better chance of survival.

Personnel actions, and in some cases the lack of personnel actions, kept the Regional Fire Program in a state of flux most of the year. FMO vacancies at Anahuac, Brazoria, and Lower Rio Grande National Wildlife Refuges and AFMO vacancies at Buenos Aires and McFaddin National Wildlife Refuges were not filled during 1999, in spite of multiple vacancy announcements. This number of vacancies in key fire management positions required that the Texas refuges pool resources in order to safely accomplish their wildland and prescribed fire objectives. RFMC Mike Phillips became part of the Fire Management Branch at NIFC as the Service Safety Awareness in the Fire Environment Coordinator. In turn, Mike Benscoter became Region 2 RFMC. In September, Rod Bloms Regional Wildland Fire Operations Specialist,

moved to NIFC. Rod will be the Service's Fire Planning and Operations Specialist.

The Region entered into an interagency agreement with the Bureau of Land Management and the Bureau of Indian Affairs to manage the fire program along the Lower Colorado River. By agreement, the BLM FMO located in Yuma, AZ administers the overall program with on-the-ground responsibilities delegated to FWS and BIA FMOs. The FWS FMO is located at Havasu National Wildlife Refuge and is responsible for the northern half of the Fire Management Zone. This agreement creates numerous efficiencies in the fire management organization and operation for all bureaus within the Lower Colorado River.

*Mike Benscoter*  
*Regional Fire Management Coordinator*

**State of Arizona  
State Land Department  
Fire Management Division**



The 1999 fire year was a difficult year to predict for the Arizona State Land Department. The season started early with near record numbers of fires and burned acreage by March and April and forecasts from the Climate Prediction Center for below normal precipitation and above normal temperatures for Arizona during the remaining spring and summer of 1999. We asked for and received pre-positioning (severity) funding from the Governor's office in anticipation of a difficult summer fire season.

Pre-positioned resources included a joint effort with the Apache-Sitgreaves National Forest of a type-3 helicopter and crew at Heber with the State paying for a call-when-needed helicopter and the Apache-Sitgreaves paying the cost of a detail crew. All management and dispatch was done through the White Mountain Zone dispatch office. We further pre-positioned and ATGS with aircraft and a single engine air tanker at Sierra Vista, AZ and a ATGS with aircraft and a single engine air tanker in the Phoenix area. Additionally, we were able to provide funding to cover cost of availability and crew to extend the BLM single engine air tanker contract at Kingman, AZ to 7-day coverage for the contract period. Ground attack resources included pre-positioned engines in the Prescott, Payson, Mt. Lemon, and southeastern areas of Arizona. We were also able to provide office space and utility cost support for a joint interagency fire prevention center in Phoenix. All pre-positioned resources were made available to our Federal wildland fire partner agencies.

The above precautions became somewhat anti-climactical with much of the State receiving late spring/early summer moisture and, contrary to CPC and National Weather Service predictions, lower than normal temperatures and above normal dew points for most of the State from mid-June through the end of the 1999 fire season. The year ended with fire numbers and acreage burned on State and private land considerably above 1998 numbers, but still well below the average.

One bright spot of the year was our ability assist partner Federal agencies on 206 different incidents this year. Most notable of this effort was our support to the Tonto National Forest in operation of the Arizona Mobilization Center and a record number of out of state assignments for overhead, aircraft, engines, and EMT/paramedics. We're proud of our increasing ability in this role and hope to expand it even more in the forthcoming years.

David G. Behrens  
State Fire Management Officer

**State of New Mexico  
Forestry and Resources Conservation Division  
Fire Management Division**



The New Mexico Forestry Division entered into the 1999 fire season with a lot of apprehension as to what kind of a fire season would unfold for the State of New Mexico. The state had received approximately 15 days of moisture late in October and the first 10 days of November 1998 but the remainder of November and December did not see any measurable precipitation. By February 1999 drought indicators were beginning to point to a possible drought situation for the state during the summer months. The Forestry Division began making preparations for a long fire season that could possibly equal or exceed the 1996 season. Measures were initiated by the Division to prepare a weekly assessment for the Secretary of the Energy, Minerals and Natural Resources Department and the Governor's Office. In late March moisture intervened and brought some much needed relief to parts of the state. Another surge of moisture in April and again in May brought additional drought relief to most of the state but did little for drought conditions in southwestern New Mexico. In early May interagency fire restrictions on smoking and campfires were applied to counties in southwestern New Mexico.

The New Mexico Forestry Division was involved in 2 interagency fires during the 1999 fire season. The La Jara Fire burned 2,900 acres on the Cibola National Forest and 300 acres on private land on the western slopes of Mt. Taylor on June 3, 1999. The Water Fire burned 486 acres on tribal land belonging to the Laguna Agency and 54 acres of private land on the eastern slopes of Mt. Taylor on June 4, 1999. Type II Incident Management teams were ordered through Albuquerque Zone to manage each of the wildland fire incidents.

The summer monsoon rain pattern started establishing itself during the last week of June and had spread statewide by mid July bringing an abrupt end to the 1999 fire season in New Mexico. Northern New Mexico experienced the rainiest season on record during 1999. Fall moisture was almost nonexistent through the end of December throughout New Mexico.

The Forestry Division sent 26 employees on Out-of-State fire assignments to support fire suppression efforts in other geographic areas during the summer and fall of 1999. These employees gained valuable fire suppression experience from their assignments.

The Forestry Division is now preparing for what may be a potentially long and dry Y2K fire season.



*Frank Smith*  
*Chief, Fire Management Division*

## WEATHER SUMMARIES

### **National Weather Service Weather Service Forecast Office Phoenix Area Office**



The winter months of 1998-1999 were very dry. In fact, this past winter ranked as one of the driest winter on record. This was true of almost every month that winter, especially December through February. It looked as if this was going to turn into a very severe fire season for Arizona. The dry conditions continued into early April, a month that normally starts our dry period. However, an unusual large number of storms did bring a substantial increase in precipitation to the state, somewhat alleviating the drought conditions and fire danger. The month of May continued to see an unusual large number of weather systems affecting the region, although they were usually further to the north and not nearly as wet. However, these storms did bring windy conditions and unusually cool weather.

Getting into the first summer month of the year, June is normally hot and dry. However, the push of strong and cold weather systems into the western states including Arizona continued to affect Arizona. As a result, this month was quite cool, especially during the first half. It was also wetter than normal, with even snow being reported in some northern Arizona mountains. Because of this, what looked like to be an unusually severe fire season earlier this year was turning out to be not so bad after all. The rest of the summer saw near normal to above normal monsoon rains. As a result, the fire season did not turn out be all that severe. In fact, some areas turned out be very wet, receiving from 7 to 10 inches of rain in one or the other of the summer months. Some of this rainfall was due to moisture associated with tropical storms.

As summer went into autumn, the normal dryness started to take place. In fact, both October and November were quite dry, with many areas receiving no rain at all. This dry period extended through the month of December as well.

*Robert Berkovitz  
Fire Weather Forecaster*

**National Weather Service  
Weather Service Forecast Office  
Albuquerque Area Office**



The weather pattern in 1999 was heavily influenced by an ongoing La Nina episode. La Nina episodes impact New Mexico by bringing warmer and drier than normal conditions during the fall and winter months. At the same time, La Nina has not been shown to correlate well with unusual temperature or precipitation patterns during the spring and summer months, when the effect of topography plays a much larger role in New Mexico weather. This fit very well with what occurred in 1999, when one of the driest winters on record was followed by one of the wettest spring and summer periods on record. In addition, warmer and drier than normal conditions were observed in the latter part of the year, from late fall into the new year.

The warm and dry conditions left the statewide snowpack well below average by late in February of the year, and many areas of the state were considered to be in a moderate drought situation. With the usually more windy and dry conditions of the coming spring expected, an active fire season was anticipated. However, starting in March, a series of very slow moving low pressure systems traversed the state about once every seven to ten days. This pattern lasted through early May and had the effect of bringing areas of heavy mountain snows and actually increasing the snowpack to near normal in some areas. Still, areas in the southwest third of the state remained without much precipitation through this time period, and this is where the large fire activity occurred through June.

As the regular summertime pattern became established, wetting rains began in late June across the south and spread north to cover much of the state by July. Daily thunderstorm activity continued through September, with most areas receiving average or above average rainfall. The moisture shut off in October as the westerlies returned to the state, and warm temperatures with below average precipitation was reported in many areas of the state through the remainder of the year. The statewide snowpack was less than half of normal by the start of the new year.

Operations As part of the continued Modernization and Restructuring of the National Weather Service, the transition of southern New Mexico fire weather services from Albuquerque to offices in Midland and El Paso, Texas was completed in July. Midland and El Paso now provide the full suite of fire weather forecasts and services to the Gila and Lincoln zones, while Albuquerque continues to provide them to the Albuquerque, Santa Fe and Taos zones. As part of these changes, the zones for the daily narrative forecasts were changed to provide separate forecasts for major mountain and valley areas. All of these changes were coordinated through the New Mexico Fire Weather Working Team.

For Incident Response, a substantial change was made in that the National Weather Service Office in Albuquerque was made a permanent cache site for an ATMU. Until this year, an ATMU was always prepositioned in Albuquerque in the spring from one of the offices in Montana. The state IMET at Albuquerque was dispatched to three incidents in 1999: the Telephone Fire on the Mescalero Apache reservation in May, the Hermosa Phase III Burn on the Gila National Forest in June, and the Big Bar Complex in California in September.

*Chuck Maxwell*  
*Fire Weather Forecaster*